

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:

Bickford, Randall L.

SERIAL NO.:

10/600,721

ART UNIT: 2121

FILED:

June 20, 2003

EXAMINER: Not Yet Assigned

FOR:

Surveillance System and

Method having an Operating

Mode Partitioned Fault

Classification Model

To:

Commissioner For Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT BEFORE MAILING OF FIRST OFFICE ACTION UNDER 37 CFR 1.97(b)

The patents and publications listed on the appended PTO/SB/08A form (Substitute for form 1449A/PTO) reflect the state of the art of which applicant is currently aware. These references are included to fulfill the applicant's duty to disclose prior art. It is stipulated, however, that none of these references teach singly, nor render obvious when combined, the nexus of this invention as disclosed and as particularly claimed.

IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION DISCLOSURE STATEMENT

This information disclosure statement, including the attachments submitted herewith, are being filed before the mailing date of a first Office Action on the merits.

Dated: January 6, 2004

Respectfully Submitted:

Telephone: (916) 449-3983 Registration No.: 42,471

[Information Disclosure Statement]

e a plus sign (+) inside this box -> +

PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number,

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 8

C mpl te if Known				
Application Number	10/600,721			
Filing Date	6/20/2003			
First Named Inventor	Bickford, Randall L.			
Group Art Unit	2121			
Examiner Name	Not yet Assigned			
Attorney Docket Number	23406-cip			

			U.S. PATENT DOC	UMENTS	
Examiner Initials*	Cite No.1	U.S. Patent Docume Kind C Number (if kno	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	4,295,128	Hashemian et al.	10-13-1981	
	2	4,478,783	Broadwater	10-23-1984	
	3	4,761,748	Le Rat et al.	08-02-1988	
	4	4,937,763	Mott	06-26-1990	
	5	4,975,968	Yukl, Tex	12-04-1990	
	6	5,009,833	Takeuchi et al.	04-23-1991	
	7	5,223,207	Gross et al.	06-29-1993	
	8	5,274,572	O'Neil et al.	12-28-1993	
	9	5,381,140	Kuroda, et al.	01-10-1995	
	10	5,392,320	Chao	02/21/1995	
	11	5,402,521	Niida et al.	03-28-1995	
	12·	5,410,492	Gross et al.	04-25-1995	
	13	5,459,675	Gross et al.	10-17-1995	
	14	5,465,321	Smyth	11-07-1995	
	15	5,506,794	Lange	04-09-1996	
	16	5,586,066	White et al.	12-17-1996	
	17	5,602,886	Gross et al.	02-11-1997	
	18	5,629,872	Gross et al.	05-13-1997	
	19	5,661,735	Fischer .	08-26-1997	
	20	5,680,409	Qin et al.	10-21-1997	

	FOREIGN PATENT DOCUMENTS										
Examiner	Cite	F	oreign Patent Do		Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant				
Initials	No.1	Office ³	Number ⁴	Kind Code ⁵ (if known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T6			
			<u> </u>								
		-						Ш			
		-	· · · · ·								
┝		 		++				-			
-		 		++	,			\vdash			
1		-					···	-			

	· · · · · · · · · · · · · · · · · · ·		
Examiner		Date	
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

e a plus sign (+) inside this box -> +

PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 8

Compl t if Known				
Application Number	10/600,721			
Filing Date	6/20/2003			
First Named Inventor	Bickford, Randall L.			
Group Art Unit	2121			
Examiner Name	Not yet Assigned			
Attorney Docket Number	23406-cip			

			U.S. PATENT DOCU	JMENTS	
Examiner Initials*	Cite No.1	U.S. Patent Document Kind Code Number (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	21	5,706,321	Chen et al.	06-06-1998	
	22	5,740,033	Wassick et al.	04-14-1998	
	23	5,745,382	Vilim et al.	04-28-1998	
	24	5,761,090	Gross et al.	06-02-1998	
	25	5,764,509	Gross et al.	06-09-1998	
	26	5,774,379	Gross et al.	06-30-1998	
	27	5,774,569	Waldenmaier	06-30-1998	
	28	5,864,773	Barna et al.	06-26-1999	
	29	5,877,999	Holt, et al.	03-02-1999	
	30	5,950,147	Sarangapani et al.	09-07-1999	•
	31	5,987,399	Wegerich et al.	11-16-1999	
	32	5,991,525	Shah et al	11-23-1999	
	33	6,016,465	Kelly	01-18-2000	
	34	6,073,262	Larkin, et al.	06-06-2000	
	35	6,107,919	Wilks, et al.	08-22-2000	
	36	6,119,111	Gross, et al.	09-12-2000	
	37	6,131,076	Wegerich, et al.	10-10-2000	
	38	6,181,975	Gross, et al.	01-30-2001	
	39	6,202,038	Wegerich, et al.	03-13-2001	
	40	6,240,372	Gross, et al.	05-29-2001	

		V		FORE	IGN PATENT DOCUMENT	rs		
Eversions	Cite		Foreign Patent Do	cument	Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant	\Box
Examiner Initials*	No.1	Office ³	Number ⁴	Kind Code ⁵ (if known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T ⁶
					<u></u>			\square
					· · · · · · · · · · · · · · · · · · ·			

Examiner		Date	
Signature	•	Considered	



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

ы				
Z)	pe a plus sign (+) inside this box	\rightarrow	+	ı
~				1

PTO/SB/08A (10-96)

Approved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of |8 Sheet

Complet if Known						
Application Number 10/600,721						
Filing Date 6/20/2003						
First Named Inventor	Bickford, Randall L.					
Group Art Unit	2121					
Examiner Name	Not yet Assigned					
Attorney Docket Number	23406-cip					

		•	U.S. PATENT DOCU	JMENTS		
Examiner Initials	Cite No.1	U.S. Patent Document Kind Code ² Number (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	41	6,415,276	Heger, et al.	07-02-2002		
	42	6,466,858	Adibhatla, et al.	10-15-2002		
	43	6,502,085	Adibhatla, et al.	12-31-2002		
	44	6,532,412	Adibhatla, et al.	03-11-2003		
	45	6,535,865	Skaaning, et al.	03-18-2003		
	46	6,539,783	Adibhatla	04-01-2003		
	47	6,553,334	Gross, et al.	04-22-2003		
	48	6,556,939	Wegerich	04-29-2003		
	49	2001/0049590	Wegerich	12-06-2001		
	50	2002/0042692	Gross, et al.	04-11-2002		
	51	2002/0055826	Wegerich, et al.	05-09-2002		
	52	2002/0087290	Wegerich, et al.	07-04-2002		
	53	2002/0091499	Wegerich, et al.	07-11-2002		
	54	2002/0128731	Wegerich, et al.	09-12-2002	-	
	55	2002/0133320	Wegerich, et al.	09-19-2002		
	56	2002/0152056	Herzog, et al.	10-17-2002		
	57	2002/0183971	Wegerich, et al.	12-05-2002		
	58	2002/0188423	Gross, et al.	12-12-2002		
	59	2002/0193933	Adibhatla, et al.	12-19-2002		
	60	2003/0028349	Gross, et al.	02-06-2003		

				FORE	IGN PATENT DOCUMENT	rs		
Examiner	Cite	ļ <u>.</u>	Foreign Patent Doo		Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant	П
Initials*	No.1	Office ³	Number ⁴	Kind Code ⁵ (if known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T ₆
					-			\prod
							<u> </u>	
	-						· ·	\Box
			=					\square
			•		١			
								Ш
		$\sqcup \bot$						$oldsymbol{oldsymbol{oldsymbol{\sqcup}}}$
								\sqcup
								igspace

Examiner	Date	
Signature	Considered	\(\lambda\)

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents, ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

1001 (0)	
Ulika addina o alua siaa (1) isaida ibia bau	
pe a plus sign (+) inside this box ->	+

PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 4 of 8

Complet if Known					
Application Number	10/600,721				
Filing Date	6/20/2003				
First Named Inventor	Bickford, Randall L.				
Group Art Unit	2121				
Examiner Name	Not yet Assigned				
Attorney Docket Number	23406-cip				

	U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No.1	U.S. Patent Document Number Kind Code² (if known)		Kind Code2		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	61	2003/0055607		Wegerich, et al.	03-20-2003			
		·						
		_						
					4	*		
		1						

	FOREIGN PATENT DOCUMENTS									
	Examiner Cite				Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant			
Initials*	No.1	Office ³	Number ⁴	(if known)	''	MM-DD-YYYY	Passages or Relevant Figures Appear	T6		
					•			+		
		<u> </u>						┼┼┤		
								\Box		
								\square		
		\vdash						┼┤		
										

Examiner	Date	
Signature	Considered	



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3): ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

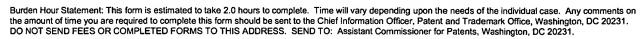
JAN	0	8	2004	ay ype a plus sign (+) inside this box →	
			Ple	assyppe a plus sign (+) inside this box 🛶	+

JAN 0 8 2004	aş ype a p	lus sign (+) inside this l	00x - 1995	+ + , no persons are required to res	Appi Patent and Tradem pond to a collection of informatic	PTO/SB/08B (10-96) roved for use through 10/31/99. OMB 0651-0031 ark Office: U.S. DEPARTMENT OF COMMERCE in unless it contains a valid OMB control number.
RADEMA	Substitu	ute for form 1449B/PT0)		Co	mpl t if Known
•					Application Number	10/600,721
	INFORMATION DISCLOSURE			ISCLOSURE	Filing Date	6/20/2003
	STATEMENT BY APPLICANT			APPLICANT	First Named Inventor	Bickford, Randall L.
			•		Group Art Unit	2121
-		(use as many s	heet	s as necessary)	Examiner Name	Not yet Assigned
	Sheet	5	of	8	Attorney Docket Number	23406-cip

_		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	62	BICKFORD, R.L., Phase Partioning the Multivariate State Estimation Technique (MSET) Process for Improved Paramenter Estimation Performance and Processing Speed, New Technology Report, January 13, 2000, Printed in USA by Expert Microsystems, Inc.	
	63	HERZOG, J.P., System Classification Using A Learning Vector Quantization (LVQ) Neural Network New Technology Report, January 13, 2000, Printed in USA by Argonne National Laboratory.	
	64	HERZOG, J.P., et al, MSET Modeling of Crystal River-3 Venturi Flow Meters, 6th International Conference on Nuclear Engineering, 1998, Printed in USA by ASME	
	65	HERZOG, J.P., et al. Dynamics Sensor Validation For Reusable Launch Vehicle Propulsion, 34th AIAA/ASME/SAE/ ASEE Joint Propulsion Conference, 1998, Printed in USA by Argonne National Laboratory & Expert Microsystems.	
	66	GROSS, K.C., et al, Application of a Model-based Fault Detection System to Nuclear Plant Signals, International Conference on Intellegent System Application To Power Systems, July 1997, Printed in USA by Argonne National Laboratory & Florida Power Corporation.	
	67	SINGER, R.M., et al, Model-Based Nuclear Power Plant Monitoring And Fault Detection: Theoretical Foundations, International Conference On Intelligent Systems, July 1997, Printed in USA by Argonne National Laboratory.	
	68	HYLKO, J.M., New Al Technique Detects Instruments, Power, November 1998, Printed in USA by Power.	
	69	DEYST, J.J., Sensor Validation: Method To Enhance The Quality Of The Man/Machine Interface In Nuclear Power Stations, IEEE Transactions On Nuclear Science, February 1981, Printed in USA by IEEE Transactions On Nuclear Science.	
	70	GROSS, K.C., et al, Sequential Probability Ratio Test For Nuclear Plant Component Surveillance, Nuclear Technology, 1990, Printed in USA by Argonne National Laboratory.	
	71	RACZ, A., Comments On The Sequential Probability Ratio Testing Methods, Ann. Nuclear Energy, 1995, Printed in USA by KFKI-Atomic Energy Research Institute Applied Reactor Physics Laboratory.	
	72	KULACSY, K., Further Comments On The Sequential Probability Ratio Testing Methods, Annals Of Nuclear Energy, 1996, Printed in USA by KFKI Atomic Energy Research Institute	

Evenines	Data	
Examiner	Date	
Signature	Considered	

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.





^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

lease type a plus sign (+) inside this box ->	+

PTO/SB/08B (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 6 of 8

Compl t if Known					
Application Number	10/600,721				
Filing Date	6/20/2003				
First Named Inventor	Bickford, Randall L.				
Group Art Unit	2121				
Examiner Name	Not yet Assigned				
Attomey Docket Number	23406-cip				

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2					
73	BICKFORD, R.L., et al, Real-Time Space Shuttle Main Engine Sensor Validation, National Aeronautics and Space Administration, August 1995, Printed in USA by ExperTech & Intelligent Software Associates, Inc.						
74	BICKFORD, R.L., et al, Real-Time Flight Data Validation For Rocket Engines, AIAA, 1996, Printed in USA by ExperTech & NYMA, Inc.						
75	BICKFORD, R.L., et al, Real-Time Sensor Validation for Autonomous Flight Control, AIAA, July 1997, Printed in USA by Expert Microsystems, Inc. & Intelligent Software Associates, Inc. & Beoing Defense and Space Group						
76	BICKFORD, R.L., et al, Real-Time Sensor Validation For Propulsion Systems, American Institute of Aeronautics and Astronautics, 1998, Printed in USA by Expert Microsystems, Inc & Dynacs Engineering Co.						
77	BICKFORD, R.L., et al, Real-Time Sensor Data Validation For Space Shuttle Main Engine Telemetry Monitoring, AIAA, June 1999, Printed in USA by Expert Microsystems, Inc.& Intelligent Software Associates, Inc. & Dynacs Engineering Company & NASA Glenn Research Center						
78	MOTT, J.E., et al, EBR-II System Surveillance Using Pattern Recognition Software, ANS/ENS Mtg. on Operability of Nuclear Power Systems, September 1986, Printed in USA by Saratoga Engineering Consultants and Argonne National Laboratory						
79	MOTT, J.E., et al, A Generalized System State Analyzer for Plant Surveillance, ANS/ENS Mtg. on Artificial Intelligence Applications in the Nuclear Industry, August 1987, Printed in USA by El International, Inc. and Argonne National Laboratory						
80	MOTT, J.E., et al, Pattern-Recognition Software for Plant Surveillance, ANS Transactions, 1987, Printed in USA by the American Nuclear Society						
81	MOTT, J.E., et al, Pattern-Recognition Software for Plant Surveillance, ANS Intl. Mtg. on Nuclear Power Plant Operation, August 1987, Printed in USA by El International, Inc. and Argonne National Laboratory						
82	MOTT, J.E., et al, Pattern-Recognition Software Detecting the Onset of Failures In Complex Systems, 42nd Mtg. of Mech. Failures Prevention Group, September 1987, Printed in USA by El International, Inc. and Argonne National Laboratory						
83	KING, R.W., et al, Pattern-Recognition System Application to EBR-II Plant-Life Extension, ANS Mtg. on Nuclear Power Plant Life Extension, July 1988, Printed in USA by Argonne National Laboratory and El International, Inc.						
	73 74 75 76 77 78 79 80 81	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. BICKFORD, R.L., et al, Real-Time Space Shuttle Main Engine Sensor Validation, National Aeronautics and Space Administration, August 1995, Printed in USA by ExperTech & Intelligent Software Associates, Inc. BICKFORD, R.L., et al, Real-Time Flight Data Validation For Rocket Engines, AIAA, 1996, Printed in USA by ExperTech & NYMA, Inc. BICKFORD, R.L., et al, Real-Time Sensor Validation for Autonomous Flight Control, AIAA, July 1997, Printed in USA by Expert Microsystems, Inc. & Intelligent Software Associates, Inc. & Beoing Defense and Space Group BICKFORD, R.L., et al, Real-Time Sensor Validation For Propulsion Systems, American Institute of Aeronautics and Astronautics, 1998, Printed in USA by Expert Microsystems, Inc. & Dynacs Engineering Co. BICKFORD, R.L., et al, Real-Time Sensor Data Validation For Space Shuttle Main Engine Telemetry Monitoring, AIAA, June 1999, Printed in USA by Expert Microsystems, Inc. & Intelligent Software Associates, Inc. & Dynacs Engineering Company & NASA Glenn Research Center MOTT, J.E., et al, EBR-II System Surveillance Using Pattern Recognition Software, ANS/ENS Mtg. on Operability of Nuclear Power Systems, September 1986, Printed in USA by Saratoga Engineering Consultants and Argonne National Laboratory MOTT, J.E., et al, A Generalized System State Analyzer for Plant Surveillance, ANS/ENS Mtg. on Artificial Intelligence Applications in the Nuclear Industry, August 1987, Printed in USA by EI International, Inc. and Argonne National Laboratory MOTT, J.E., et al, Pattern-Recognition Software for Plant Surveillance, ANS Intl. Mtg. on Nuclear Power Plant Operation, August 1987, Printed in USA by EI International, Inc. and Argonne National Laboratory MOTT, J.E., et al, Pattern-Recognition Software Detecting the Onset of Failures In Complex Systems, 42nd Mtg. of Mech. Failures Prevention Group, September 1987, Printed in USA by					

Examiner	Date	
Signature	 Considered	



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

JAN	0	8	2004	8	
•		•	Ple		ype a plus sign (+) inside this box → +

23406-cip

E	leand type a p	olus sign (+) inside this		لــا	Approved for use through 10/31/99. OMB 0651-003 Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCH respond to a collection of information unless it contains a valid OMB control number		
MADELLA		ute for form 1449B/PT0			Co	emplete if Known	
	l				· Application Number	10/600,721	
	INF	ORMATION	1 C	ISCLOSURE	Filing Date	6/20/2003	
	I STA	TEMENT I	BY	APPLICANT	First Named Inventor	Bickford, Randall L.	
	"				Group Art Unit	2121	
		(use as many s	heet	s as necessary)	Examiner Name	Not yet Assigned	
	Sheet	7	of	8	Attorney Docket Number	23406-cip	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS								
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²						
	84	SINGER, R.M., et al, Use of a Pattern Recognition Scheme to Compensate for Critical Sensor Failures, 1st Intl. Machinery Monitoring and Diagnostic Conf., September 1989, Printed in USA by Argonne National Laboratory							
-	85	MOTT, J.E., et al, A Universal, Fault Tolerant, Non-Linear Analytic Network for Modeling and Fault Detection, 8th Power Plant Dynamics, Control & Testing Symposium, May 1992, Printed in USA by Advanced Modeling Techniques Corporation and Argonne National Laboratory							
	86	MOTT, J.E., et al, Feedwater Flow Estimation via Sample-Based Modeling, 8th Power Plant Dynamics, Control & Testing Symposium, May 1992, Printed in USA by Advanced Modeling Techniques Corporation and Northeast Utilities							
	87	HARRIS, T.J., et al, Empirical Models for Intelligent Data Validation, 35th POWID Symposium, June 1992, Printed in USA by Halliburton NUS and Entergy Operations, Inc.							
_	88	HUANG, C., et al, Inference in Belief Networks: A Procedural Guide, Intl. Journal of Approximate Reasoning, 11:1-45, 1994, Printed in USA by Elsevier Science, Inc.							
	89	SINGER, R.M., et al, A Pattern-recognition-based, Fault-tolerant Monitoring and Diagnostic Technique, 7th Symp. on Nuclear, Reactor Surveillance, June 1995, Printed in USA by Argonne National Laboratory							
	90	SINGER, R.M., et al, Power Plant Surveillance and Fault Detection: Applications to a Commercial PWR, Intl. Atomic Energy Commission, IAEA-TECDOC-1054, pp. 185-200, September 1997, Printed in USA by Argonne National Laboratory							
	91	MIRON, A., et al, The Effects of Parameter Variation on MSET Models of the Crystal River-3 Feedwater Flow System, ANS Annual Meeting, June 1998, Printed in USA by Argonne National Laboratory							
	92	BICKFORD, R.L., et al, Sensor Validation Tools and SSME Network, Final Report, April 2000, Printed in USA by Expert Microsystems, Inc.							
	93	ZAVALJEVSKI, N., et al, Support Vector Machines for Nuclear Reactor State Estimation, ANS Topical Mtg. on Advances in Reactor Physics, May 2000, Printed in USA by Argonne National Laboratory							
	94	ZAVALJEVSKI, N., et al, Sensor Fault Detection in Nuclear Power Plants Using Multivariate State Estimation Technique and Support Vector Machines, 3rd Intl. Conf. of Yugoslav Nuclear Society, October 2000, Printed in USA by Argonne National Laboratory							

Examiner	111	Date	
Signature		Considered	



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

W	U	Ď	AUU4 H	1	
			Plea	type a plus sign (+) inside this box ->	+

type a plus sign (+) inside this box + + + Approved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of 8

Compl te if Known					
Application Number	10/600,721				
Filing Date	6/20/2003				
First Named Inventor	Bickford, Randall L.	-			
Group Art Unit	2121				
Examiner Name	Not yet Assigned				
Attorney Docket Number	23406-cip	•			

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*								
	95	WEGERICH, S., et al, Challenges Facing Equipment Condition Monitoring Systems, MARCOM 2001, May 2001, Printed in USA by SmartSignal Corporation						
	96	BICKFORD, R.L., et al, Online Signal Validation for Assured Data Integrity, 47th International Instrumentation Symposium, May 2001, Printed in USA by Expert Microsystems, Inc., and NASA Glenn Research Center						
	97	DAVIS, E., et al, On-Line Monitoring at Nuclear Power Plants - Results from the EPRI On-Line Monitoring Implementation Project, 45th ISA POWID Symposium, June 2002, Printed in USA by Edan Engineering Corporation, Expert Microsystems, Inc., and Electric Power Research Institute						
	98	BICKFORD, R.L., et al, Development of an Online Predictive Monitoring System for Power Generating Plants, 45th ISA POWID Symposium, June 2002, Printed in USA by Edan Engineering Corporation, Expert Microsystems, Inc., and Electric Power Research Institute						
	99	BICKFORD, R.L., et al, Development of A Real-Time Turbine Engine Diagnostic System, AIAA Joint Propulsion Conference, July 2002, Printed in USA by Expert Microsystems, Inc., and Arnold Engineering Development Center						
	100	GROSS, K.C., et al, Proactive Detection of Software Aging Mechanisms in Performance-Critical Computers, IEEE/NASA Software Engineering Symposium, December 2002, Printed in USA by Sun Microsystems						
	101	HUSSEY, A., et al, Automated Equipment Condition Monitoring, 13th ISA/EPRI Controls and Instrumentation Conf., June 2003, Printed in USA by Electric Power Research Institute						
	102	DAVIS, E., et al, DOE-EPRI On-Line Monitoring implementation Guidelines, Interim Technical Report, January 2003, Printed in USA by Electric Power Research Institute						
	103	HANSEN, E.J., et al, Similarity Based Regression: Applied Advanced Pattern Recognition for Power Plant Analysis, 1994 EPRI Heat Rate improvement Conference. Printed in USA by Performance Consulting Services, Inc.						
	104	GRIEBENOW, R.D., et al, Applied Pattern Recognition for Plant Monitoring and Data Validation, 5th International POWID Controls and Instrumentation Conference, June 1995. Printed in USA by Performance Consulting Services, Inc.						
		-						

$\overline{}$		
Examiner	Date	
Signature	Considered	



^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.